A TEAM APPROACH
to using student data

What does it actually look like when teachers collaborate around data to improve instruction?

"We use data to drive instruction." It rolls off the tongue so beautifully. Before countless interview panels, candidates dutifully recite this mantra, but many have difficulty when asked to elaborate on it. What does it actually look like when this is really happening?

The camera zooms in on an Algebra I team, sitting around a table with neat stacks of student papers in front of them. They are discussing their most recent three-item weekly quiz – each teacher in turn using the team's portable document projector to share a student's paper, chosen because of the nature of errors that occurred. In this way, the team surfaces the most common patterns of error and misunderstanding. Then, they share and brainstorm strategies to address these patterns with students.

This is not a description of an idealized, imaginary team, but a real one. Its teachers are members of the math department at Moreno Valley High School in the Moreno Valley Unified School District. For four years, this team has collaboratively planned lessons. Responsibility rotates from teacher to teacher for developing the upcoming week's lesson plans for the team, often assisted by one of the department co-chairs, who also serve as coaches. They agreed to be filmed after using and refining the new protocol for one semester.

Individual teaching styles evident

Visitors to these teachers' classrooms will note that they are far from carbon copies of each other. While they are, for the most part, on the same lesson, each individual teacher's personality and teaching style is evident as she works with students, but one or two strategies agreed upon in the most recent collaboration will be in evidence in all of them. The math coach for the

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team may be sitting off to the side making notes in one of the rooms. Later, the coach and teacher will discuss the impact of the chosen strategies on student understanding, as demonstrated by their work during the period.

Additionally, each course-alike team in the MVHS math department has a common grading policy, allowing students to retake quizzes and tests for a better grade. The math teams at MVHS have used discussion protocols for common assessments for several years. Teachers administer district benchmark tests quarterly, with common quizzes and tests given more frequently.

Originally, the Algebra I team administered a more comprehensive weekly quiz, but experienced difficulty focusing its discussion during the hour allocated for collaboration on the weekly early-dismissal day. Now, agreement on the most critical concept to be assessed from the upcoming week's instruction allows the teachers to have more focused, effective discussions. The three-item quiz also takes less class time – it simply replaces a regular warm-up once a week.

In "Classroom Assessment and Grading That Work" (2006), Robert Marzano discusses the importance of frequent feedback to students. The team's weekly quiz is consistent with the research findings and recommendations for frequency for maximum impact on achievement.

Variety of protocols

How can collaboration occur around data if a school has only one or two teachers per grade level or course? The object of collaboration is to improve instruction so that all students will master essential learnings. The Student-Based Protocol used at MVHS is only one of many kinds of protocols.

Another variety is the Student Work Protocol, sometimes referred to as a "tuning protocol" because the purpose is to fine-tune instruction to improve student success. Colleagues using this protocol do not have to teach the same grade level, course, or even the same subject area.

In this kind of discussion, responsibility rotates from one meeting to the next to be the "presenting" teacher. That teacher

brings a half-dozen samples of student work that resulted from a single or multi-day lesson, which are either projected or copied for the other team members. She provides concise background on the standard, objective, lesson activities and a focusing question, usually, "What should my next steps be?" or "What strategies might enhance the success of my students in a similar lesson?"

The team asks any questions needed for clarification about the lesson, then each member silently writes feedback for the presenting teacher. After a few minutes, the presenting teacher pushes away from the table and prepares to take notes. The team proceeds to discuss its feedback for her as if she was not present, referring to her in the third person. The presenting teacher remains silent during this time.

When time is up for that segment, she rejoins the group, and chooses whatever parts of the feedback she wishes to respond to. She collects all of the written feedback, and the team discusses the experience itself – its benefits, any issues, and how well they adhered to the protocol structure.

This protocol has benefits for the entire group, not just the presenting teacher. The "groupthink" on a common topic yields deeper understanding of specific strategies, including which strategies benefit specific students and why. Ideas that may be new for most of the group or for only one member

are discussed professionally in a low-risk environment. Diverse groups of teachers benefit as much from this protocol as teachers of a common course or grade level.

It is a testament to the power of this protocol that even non-teachers – consultants and staff developers whose work differs considerably from each other's – benefit greatly from using a tuning protocol. Each month, one such unit at the Riverside County Office of Education discussed a "piece of work" from one member, ranging from a workshop, to a presentation, to facilitating a school leadership team meeting.

The "data that drives instruction" – in this case, staff development – was the vignette of the experience, and evidence of results from the work. Group members often remarked, "When we do this protocol, it's about the only time we all shut up and really listen to each other. We learn so much this way."

Using conventional data

Grade-level and course-alike teacher teams can also effectively utilize conventional data from six- to eight-week common assessments, such as district benchmarks, and annual assessments such as the California Standards Tests and the High School Exit Exam, but for different purposes.

Sometimes these are referred to as "autopsies," because they can serve to point out

program strengths or weaknesses for overall planning. They can assist teams in identifying areas of the standards that received insufficient instructional time, and areas that were less or more successful for students as a whole, as well as for groups of students such as English learners and students with special needs.

This enables the team to adjust its semester or yearly pacing guide, and consider what scaffolding strategies are needed for these and other students. Unfortunately, these large-scale assessments are not typically useful for preventing individual student failure, because a student can fall hopelessly behind in a matter of a few weeks.

SMART Goals

Summative assessments such as quarterly benchmarks do lend themselves to the setting and evaluation of SMART Goals. The SMART format (Strategic and Specific, Measurable, Attainable, Results-oriented, Time-bound) holds potential for accurately measuring instructional/program effectiveness.

Unfortunately, that process can be easily derailed by tangential issues, such as debates over good versus bad test items. Also, although the overall improvement in student achievement can be significant, the process does not necessarily address the individual students who failed or are close to failure, and a larger percentage of students who succeeded (when the team attained its SMART Goal) can mask not only the numbers, but also the real identities of those who did not.

So, while a biology team, for instance, certainly has cause for celebration when the student pass rate on the quarterly exam improved from 50 percent to 75 percent between the first and second quarters (when the goal was to have at least 60 percent pass in this time), the 25 percent still failing is a significant cause for concern.

In the business world, some manufacturers insert a slip in each product, reading something like, "Inspected by No. 16," obviously in hopes of reducing flawed items through systems of personal accountability. But even if the company attained a "SMART Goal" of reducing, say, sandal heels glued on askew by 30 percent from one production cycle to the next, they might still have piles of rejects and consumer returns. Their real goal is zero rejects and no returned items. For educators, a better way to evaluate a SMART Goal is "by the numbers" – the actual numbers of real students, not percentages.

Here is an example of how one leadership team took their district's broad AYP goal to a SMART, SMARTer, and finally SMARTest goals within their school's grade-level teams.

District AYP Goal:

For all students to make the NCLB Annual Measurable Objectives.

SMART Goal:

School-wide math achievement will improve from 58.1 percent of students proficient or above in 2010 to at least 70 percent proficient or above in 2011.

SMARTer Goal:

Third-grade math achievement will improve from 54 of 92 students proficient or above in 2010, to at least 69 of 92 students proficient or above in 2011 (students per classroom scoring proficient or above = five more per classroom than 2010).

SMARTest Goal:

Third-grade students on IEPs will improve in math achievement from four of 10 students proficient or above in 2010, to at least seven of 10 students proficient or above in 2011 (one to two more special education students per classroom scoring proficient).

Teams may need support in shifting discussions from percentages to numbers to real students by name and need. The MVHS teachers captured in the video are projecting actual student papers, students' names showing. It is clear in observing this team over time that as they present the papers, each teacher is mentally picturing that student as the paper appears on the screen.

In a similar vein, some elementary teachers have created a portable bulletin board of their students' ID pictures for team collaborations. One team put small self-stick magnets on the backs of the pictures. They move and arrange the pictures into groups as real students' needs are discussed.

Using student work as "data," site administrators and academic coaches can also enhance their discussions of classroom observations with teachers, giving increased attention to what/how well specific students are learning, versus (solely) how the teacher is instructing.

In the pre-conference, the observer and the teacher determine what the students will produce that will demonstrate their attainment of the lesson objective. The teacher collects the agreed-upon products/papers at the end of the instructional period that was observed.

At the post-conference, the teacher separates the papers into three piles: "Got it," "Almost got it" and "Missed the boat." The observer and teacher discuss the criteria for each pile, based on the objective; the plans to nudge the "Almosts" to full attainment, and what the re-teaching loop will be for the "Missed-the-boats," while providing meaningful extensions for the "Got-its."

Strategies for student "missing the boat"

Differentiated warm-ups are a simple, beginning tool to accomplish this, but some teachers – especially those teaching older students – may need support in managing small-group instruction for the short segments of the period that this will entail.

A skilled coach/administrator can also illuminate the teacher's thinking and elicit additional strategies for instructing students who chronically "miss the boat" or "almost" (but never quite) attain the objective, or may simply suggest strategies if necessary.

Since lesson objectives for many content standards can require multiple class periods, coaches should also be prepared to address "assessment-on-the-fly." An unfortunate by-product of our age of accountability is that the word "assessment" has come to
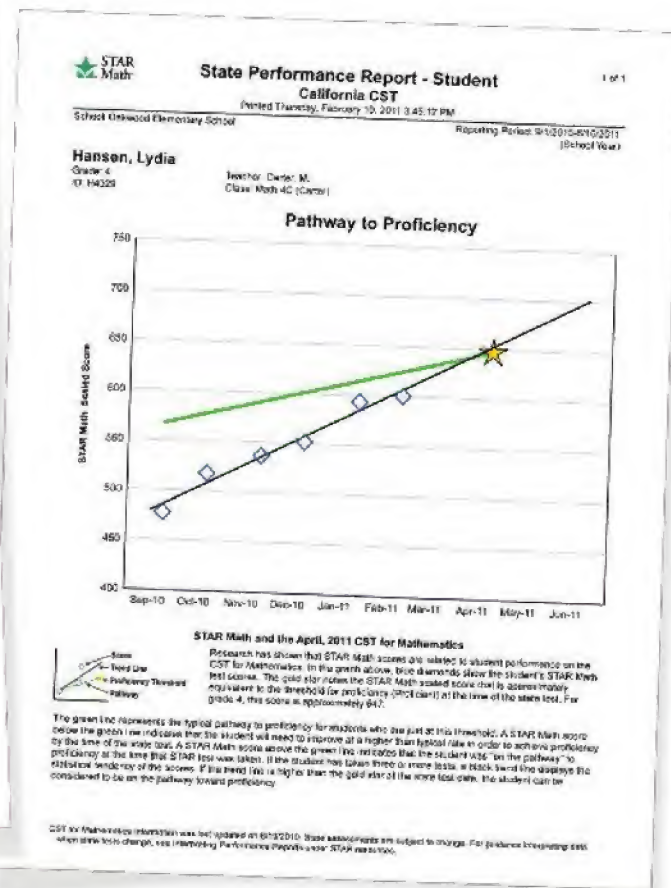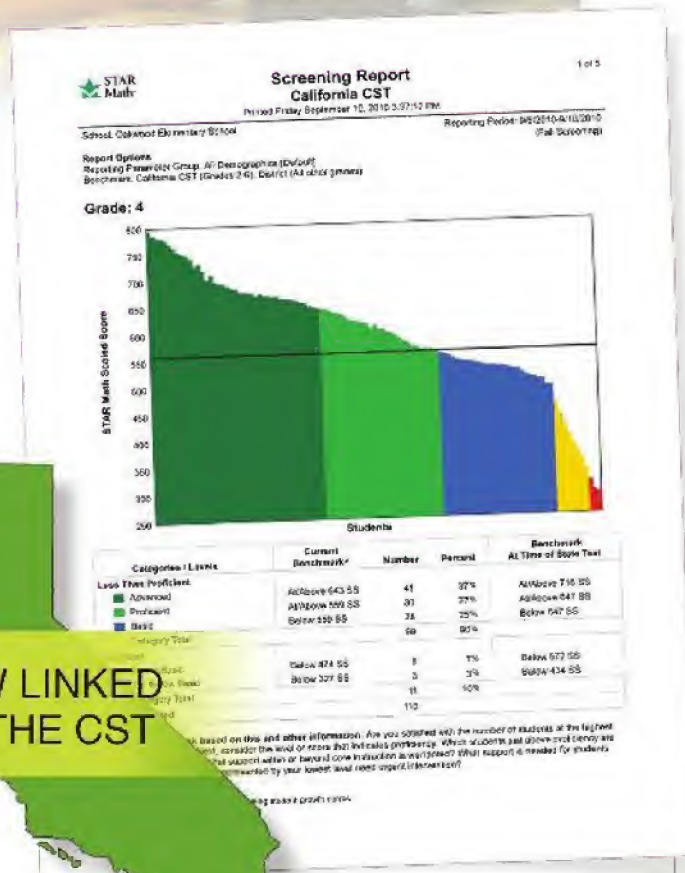
connote a formal test or quiz. In reality, any student paper, product or performance can be viewed as an assessment; this is what athletic coaches and performing arts teachers do. The paper, product or performance is the "data" used to adjust instruction – during instruction or immediately thereafter.

For example, a third grade teacher quickly moves through the classroom as students begin their independent practice, the answer key and a pencil in her hand. At the first desk she stops, checks and says, "Great – all of those are right so far," and draws a star at the end of the completed problems.

At the next desk she says, "The first one is right." She erases the work on the next problem, saying, "The square root of 144 is 12. Remember to keep your columns straight," and quickly moves to the next desk. Discipline problems simply do not have a chance to arise – the teacher is everywhere. No one is repeatedly practicing mistakes – a danger when the teacher sits down at her desk during independent practice.

Resist re-instructing the stuck student

Author Fred Jones terms this efficient, effective method Praise, Prompt, and Leave (PPL). He urges teachers to resist re-instructing "stuck" students, which requires five to six minutes per student, as discipline

problems begin to manifest in other parts of the room. To enable PPL, during direct instruction the teacher refers to an illustrated chart of steps to be followed – created in advance – called a Visual Instructional Plan, which remains posted during independent practice. Then, instead of re-instructing, the teacher simply points to the chart and says to a student, "You're on step four now," and moves on.

During guided practice (prior to independent practice), strategies sometimes termed simultaneous engagement or active participation also enable assessment-on-the-fly. They provide effective alternatives to calling on one hand at a time, or having a handful of students working at the board.

These include such strategies as think-pair-share, choral response, unison whisper, thumb signals, and devices such as Quizdoms and white boards. The "data" to adjust instruction is the work of the moment. Similarly, the most effective teachers of writing work with students while they are writing, rather than relying solely on providing feedback on papers after they are collected.

We must attend to our larger, formal data sets as well, of course. It has been said that educators suffer from "DRIP" – we are Data Rich, Information Poor. A simple transla-

tion can convert even data as comprehensive as annual CST scores to useful information for school and team planning. The API and AYP are posted in percentages. A simple calculation converts the percentages of students in the school overall, by grade level or course, and in demographic groups – who attained or did not attain proficiency or higher – to real numbers. This small shift can have a dramatic impact in teachers' perceptions. One said, "We only missed AYP for our ELs by seven students! That's not even one per teacher! We can do that! We need to find out who these kids are!"

Another team was disconcerted to see that although their school had been easily making AYP targets, with the "bar" continuing to rise if achievement remained flat, some student groups would barely make the next year's target, and others would miss it for the first time. This led to a powerful discussion of ways to identify student needs at the beginning of each new unit of instruction, with improved strategies for instructing them based on the pre-assessments.

Data key to improving student outcomes

Effective use of data is key to improving student outcomes. This requires leaders to ensure teachers have developed the skills to convert student data to useful information to effectively plan for instruction and student interventions; to hold collaborative discussions that are structured for these purposes; to broaden the view of data to include student papers, products and performances; and to broaden the view of assessment to include assessment-on-the-fly. Thus, they empower teachers to climb fully into the "driver's seat" in the multi-faceted undertaking of using data to drive instruction. ■

References and resources

DuFour, Richard and DuFour, Rebecca, *et. al.* (2006). *Learning by Doing: A Handbook of Professional Learning Communities at Work. Bloomington, IN: Solution Tree.* This is the "textbook" we use for our program, PLC School Leadership Teams That Work. The book addresses SMART Goals and many other aspects

area, said she looks for teacher assistant candidates who have worked with LA's BEST.

"First, I know that LA's BEST has very high standards for the employees they select, and that teacher assistant candidates with LA's BEST experience have a vested interest in their community. Second, LA's BEST provides leadership skills development for its staff, which translates to strong classroom management skills. Third, former and current LA's BEST staff have a well-rounded understanding of how a school site operates. And finally, they are dedicated to meeting the needs of students."

No matter how prescribed the curriculum, staff with experience in high-quality after-school programs have the assurance that the time they take to get to know what each student knows most and cares most about will serve them well in their lesson plans, and help them get the best out of students. ■

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of teacher collaboration within the PLC.

Jones, Frederic H. (1987). *Positive Classroom Instruction.* New York, NY: McGraw-Hill Books. This book is out of print but can be ordered online from several used booksellers. Fred Jones also has a website offering newer resources: www.fredjones.com.

Marzano, Robert J. (2006). *Classroom Assessment and Grading That Work.* Alexandria, VA: Association for Supervision and Curriculum Development.

Riverside County Office of Education, Educational Leadership Services Division. The division uploads tools such as the annual AYP worksheets to its webpage, located at www.rcoe. k12.ca.us/edLeadershipServices/index.html.

Wilhelm, Terry. (2009). Video: *The Student-Based Protocol: A Structure for Discussing Common Formative Assessments.* Riverside County Office of Education. This video may be downloaded at no cost from iTunes University. Go to itunes.apple.com/WebObjects/MZStore.woa/wa/view iTunesUInstitution?id=389183656 and click on Riverside County Office of Education, then select Student Based Protocol.

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